

RECEIVED

MEXICO OIL CONSERVATION COMM. 9N
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR DEC 26 1972

Form C-112
Revised 9-1-65

O. C. C.

Type Test ☐ Initial ☐ Annual ☒ Special		Test Date 12-9-72		ARTESIA, OFFICE Fed. Lse NM0540701-A	
Company Phillips Petroleum Company		Connection El Paso Natural Gas Co.			
Pool Carlsbad, South (Morrow) Gas		Formation Morrow		Unit	
Completion Date 5-21-72		Total Depth 11,875		Plug Back TD 11,806	
Csg. Size 5-1/2"		Wt. 17#, 20#		Elevation 3217' Gr. 3237' DF	
Perforations: From 11,875 To 11,806		Farm or Lease Name Drag "A"		Well No. 1	
Perforations: From 11,470 To 11,470		Unit C		Sec. 18	
		Twp. 23-S		Rje. 27-E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple G. G. Multiple		Packer Set At 11,470'		County Eddy	
Producing Thru tubing		Reservoir Temp. °F 176 @ 11800		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State New Mexico			
L 11550		H 11550		G _g .578	
% CO ₂ .0102		% N ₂ .0026		% H ₂ S --	
Prover --		Meter Run 4		Tape Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
1.	4.026 x 2.00			422.5	84.64	72	3800	72	Atoka		48 hrs.
2.							1400		zone		24 hrs.
3.									producing		
4.									thru		
5.									annulus		

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	19.81	189.10	435.7	.9887	1.315	1.031	5021
2							
3							
4							
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.63	532	1.52	.940	--	--	.578	X X X X X X X X	672	349
2										
3										
4										
5										

NO.	P _r	P _w	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = \frac{14540.5}{12262.8}$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.186$
1	1997.1	1509.2	2277.7	12262.8		
2						
3						
4						
5						

ACF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 5955$

* "n" established by Multipoint Back-Pressure test dated 5-25-72.

Apparent Flow	5955	Mcfd @ 15.025	Angle of Slope @	45	Slope, n	1.186
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Remarks: Calculations made by Electronic Calculator, Program based on New Mexico Manual for Back-Pressure testing of gas wells.

Approved by Commission:	Conducted By:	Calculated By: D. E. Simpson	Checked By: W. J. Mueller
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